Shane C. Halbach

Software Engineer, Center for Transportation Research
Energy Systems Division (ES)
Argonne National Laboratory (ANL)

Professional Experience:

6/06-present   Software Engineer
                Center for Transportation Research, ES Division, Argonne, IL

Worked as main user interface programmer on the Powertrain Systems Analysis Toolkit (PSAT) to design, code, test and maintain state-of-the-art software used by over 300 users including the Department of Energy, the major automakers and their suppliers and U.S. and international universities to simulate advanced vehicle configurations. Worked with General Motors to implement a global vehicle modeling standard and redesigned and re-implemented the PSAT software to support it. Created guidelines for and implemented software lifecycle best practices such as piracy protection, simulation result tracking over time and configuration management. Wrote and maintained internal engineering tools for ad-hoc tasks, such as supporting releases, source control reports and automatic documentation generation. Created a new C# GUI, XML database and equation system for the Greenhouse Gasses, Regulated Emissions, and Energy Use in Transportation (GREET) application to port the existing application which had outgrown its original implementation in Excel.

7/02 – 5/06   Graphical User Interface Team Lead
                Lockheed Martin, Integrated Systems and Solutions, Valley Forge, PA

Cleared for SCI access. Supervised a team of 3 to 5 individuals in the completion of GUI and middleware related tasks. GUI baseline consisted of approximately 20,000 lines of code. Created schedules and insured that all milestones were met on time. Gave demos to potential stakeholders as well as demonstrated new capabilities after spiral releases. Acted as the point of contact for all GUI COTS vendors. Provided support to stakeholders including weekly meetings and forum discussions as well as on-site support. Supported code through all phases of the software development lifecycle, including design, development, test and maintenance. Received Individual Excellence Award, November 2005, Received Team Accomplishment Award, November 2004, Received Wingspread Award, January 2003

5/00 – 7/02   Software Verification Engineer
                Delphi Automotive Systems, West Lafayette, IN

Verified and supervised others in the verification of C++ and C code against specific coding standards. Designed and implemented engineering software using Visual C++ on a Windows platform and C on a Sun workstation.

Education:

Master of Software Engineering	Pennsylvania State University, Grand Valley, PA, 2003-2005
Bachelor of Science	Purdue University, West Lafayette, IN, 1998-2002

Professional Society Activities:

Member of Society of Automotive Engineers

Laboratory Committees:

Member of Transportation Technology R&D Center's "Transportation Workgroup"